IN THE TITLE

Please amend the title to read as follows:

"SYSTEM AND METHOD FOR PREDICTION OF BEHAVIOR IN FINANCIAL SYSTEMS"

IN THE ABSTRACT

Please cancel the present Abstract and insert the following language:

A computer-based system and method are provided to determine the minimum number of factors required to account for input data by seeking an approximate minimum complexity model. In an exemplary embodiment, covariance in the daily returns of financial securities is estimated by generating a positive-definite estimate of the elements of a covariance matrix consistent with the input data. Complexity of the covariance matrix is minimized by assuming that the number of independent parameters is likely to be much smaller than the number of elements in the covariance matrix. Each variable is described as a linear combination of independent factors and a part that fluctuates independently. The simplest model for the covariance matrix is selected so that it fits the data to within a specified level as determined by the selected goodness-of-fit criterion.